

commerce, or delivered for introduction into commerce prior to the effective date of the certificate of conformity;

(3) The Agency is notified prior to the beginning of production when such production will start, and the Agency is provided full opportunity to inspect and/or test the vehicles during and after their production; for example, the Agency must have the opportunity to conduct selective enforcement auditing production line testing as if the vehicles had been produced after the effective date of the certificate.

(c) New vehicles or engines imported by an original equipment manufacturer after December 31 of the calendar year for which the model year was named are still covered by the certificate of conformity as long as the production of the vehicle or engine was completed before December 31 of that year. This paragraph does not apply to vehicles that may be covered by certificates held by independent commercial importers unless specifically approved by EPA.

(d) Vehicles or engines produced after December 31 of the calendar year for which the model year is named are not covered by the certificate of conformity for that model year. A new certificate of conformity demonstrating compliance with currently applicable standards must be obtained for these vehicles or engines even if they are identical to vehicles or engines built before December 31.

(e) The extended coverage period described here for a certificate of conformity (i.e., up to one year plus 364 days) is primarily intended to allow flexibility in the introduction of new models. Under no circumstances should it be interpreted that existing models may "skip" yearly certification by pulling ahead the production of every other model year.

### Subpart Y—Fees for the Motor Vehicle and Engine Compliance Program

#### § 85.2401 Assessment of fees.

See 40 CFR part 1027 for the applicable fees associated with certifying en-

gines, vehicles, and equipment under this chapter.

[73 FR 59178, Oct. 8, 2008]

#### APPENDIXES I–VII TO PART 85 [RESERVED]

#### APPENDIX VIII TO PART 85—VEHICLE AND ENGINE PARAMETERS AND SPECIFICATIONS

##### A. LIGHT DUTY VEHICLE PARAMETERS AND SPECIFICATIONS

##### I. Basic Engine Parameters—Reciprocating Engines.

1. Compression ratio.
2. Cranking compression pressure.
3. Valves (intake and exhaust).
  - a. Head diameter dimension.
  - b. Valve lifter or actuator type and valve lash dimension.
4. Camshaft timing.
  - a. Valve opening (degrees BTDC).
  - b. Valve closing (degrees ATDC).
  - c. Valve overlap (inch-degrees).

##### II. Basic Engine Parameters—Rotary Engines.

1. Intake port(s).
  - a. Timing and overlap if exposed to the combustion chamber.
2. Exhaust port(s).
  - a. Timing and overlap if exposed to the combustion chamber.
3. Cranking compression pressure.
4. Compression ratio.

##### III. Air Inlet System.

1. Temperature control system calibration.

##### IV. Fuel System.

1. General.
  - a. Engine idle speed.
  - b. Engine idle mixture.
2. Carburetion.
  - a. Air-fuel flow calibration.
  - b. Transient enrichment system calibration.
  - c. Starting enrichment system calibration.
  - d. Altitude compensation system calibration.
  - e. Hot idle compensation system calibration.
3. Fuel injection.
  - a. Control parameters and calibration.
  - b. Fuel shutoff system calibration.
  - c. Starting enrichment system calibration.
  - d. Transient enrichment system calibration.
  - e. Air-fuel flow calibration.
  - f. Altitude compensation system calibration.
  - g. Operating pressure(s).
  - h. Injector timing calibrations.
- V. Injection System.
  1. Control parameters and calibration.
  2. Initial timing setting.
  3. Dwell setting.

4. Altitude compensation system calibration.
  5. Spark plug voltage.
  - VI. Engine Cooling System.
    1. Thermostat calibration.
  - VII. Exhaust Emission Control System.
    1. Air injection system.
    - a. Control parameters and calibrations.
    - b. Pump flow rate.
    2. EGR system.
    - a. Control parameters and calibrations.
    - b. EGR valve flow calibration.
    3. Catalytic converter system.
    - a. Active surface area.
    - b. Volume of catalyst.
    - c. Conversion efficiency.
    4. Backpressure.
  - VIII. Evaporative Emission Control System.
    1. Control parameters and calibrations.
    2. Fuel tank.
    - a. Pressure and vacuum relief settings.
  - IX. Crankcase Emission Control System.
    1. Control parameters and calibrations.
    2. Valve calibration.
  - X. Auxiliary Emission Control Devices (AECD).
    1. Control parameters and calibrations.
    2. Component calibration(s).
  - XI. Emission Control Related Warning Systems.
    1. Control parameters and calibrations.
    2. Component calibrations.
  - XII. Driveline Parameters.
    1. Axle ratio(s).
- B. HEAVY DUTY GASOLINE ENGINE PARAMETERS AND SPECIFICATIONS
- I. Basic Engine Parameters.
    1. Compression ratio.
    2. Cranking compression pressure.
    3. Supercharger/turbocharger calibration.
    4. Valves (intake and exhaust).
    - a. Head diameter dimension.
    - b. Valve lifter or actuator type and valve lash dimension.
    5. Camshaft timing.
    - a. Valve opening (degrees BTDC).
    - b. Valve closing (degrees ATDC).
    - c. Valve overlap (inch-degrees).
  - II. Air Inlet System.
    1. Temperature control system calibration.
  - III. Fuel System.
    1. General.
    - a. Engine idle speed.
    - b. Engine idle mixture.
    2. Carburetion.
    - a. Air-fuel flow calibration.
    - b. Transient enrichment system calibration.
    - c. Starting enrichment system calibration.
    - d. Altitude compensation system calibration.
    - e. Hot idle compensation system calibration.
    3. Fuel injection.

- a. Control parameters and calibrations.
  - b. Fuel shutoff system calibration.
  - c. Starting enrichment system calibration.
  - d. Transient enrichment system calibration.
  - e. Air-fuel flow calibration.
  - f. Altitude compensation system calibration.
  - g. Operating pressure(s).
  - h. Injector timing calibration.
- IV. Ignition System.
  1. Control parameters and calibration.
  2. Initial timing setting.
  3. Dwell setting.
  4. Altitude compensation system calibration.
5. Spark plug voltage.
  - V. Engine Cooling System.
    1. Thermostat calibration.
  - VI. Exhaust Emission Control System.
    1. Air injection system.
    - a. Control parameters and calibrations.
    - b. Pump flow rate.
    2. EGR system.
    - a. Control parameters and calibrations.
    - b. EGR valve flow calibration.
    3. Catalytic converter system.
    - a. Active surface area.
    - b. Volume of catalyst.
    - c. Conversion efficiency.
    4. Backpressure.
  - VII. Evaporative Emission Control System.
    1. Control parameters and calibrations.
    2. Fuel tank.
    - a. Pressure and vacuum relief settings.
  - VIII. Crankcase Emission Control System.
    1. Control parameters and calibrations.
    2. Valve calibrations.
  - IX. Auxiliary Emission Control Devices (AECD).
    1. Control parameters and calibrations.
    2. Component calibrations.
  - X. Emission Control Related Warning Systems.
    1. Control parameters and calibrations.
    2. Component calibrations.
- C. HEAVY DUTY DIESEL ENGINE PARAMETERS AND SPECIFICATIONS
- I. Basic Engine Parameters—Four Stroke Cycle Reciprocating Engines.
    1. Compression ratio.
    2. Cranking compression pressure.
    3. Supercharger/turbocharger calibration.
    4. Valves (intake and exhaust).
    - a. Head diameter dimension.
    - b. Valve lifter or actuator type and valve lash dimension.
    5. Camshaft timing.
    - a. Valve opening (degrees BTDC).
    - b. Valve closing (degrees ATDC).
    - c. Valve overlap (inch-degrees).
  - II. Basic Engine Parameters—Two-Stroke Cycle Reciprocating Engine.
    - 1.–5. Same as Section C.I.
    6. Intake port(s).
    - a. Timing in combustion cycle.

- 7. Exhaust port(s).
- a. Timing in combustion cycle.
- III. Air Inlet System.
  - 1. Temperature control system calibration.
  - 2. Maximum allowable air inlet restriction.
- IV. Fuel System.
  - 1. Fuel injection.
  - a. Control parameters and calibrations.
  - b. Transient enrichment system calibration.
  - c. Air-fuel flow calibration.
  - d. Altitude compensation system calibration.
  - e. Operating pressure(s).
  - f. Injector timing calibration.
- V. Exhaust Emission Control System.
  - 1. Maximum allowable backpressure.
- VI. Crankcase Emission Control System.
  - 1. Control parameters and calibrations.
  - 2. Valve calibrations.
- VII. Auxiliary Emission Control Devices (AECD).
  - 1. Control parameters and calibrations.
  - 2. Component calibration(s).

[42 FR 28129, June 2, 1977]

## PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGH-WAY VEHICLES AND ENGINES

### Sec.

- 86.1 Reference materials.

### Subpart A—General Provisions for Emission Regulations for 1977 and Later Model Year New Light-Duty Vehicles, Light-Duty Trucks and Heavy-Duty Engines, and for 1985 and Later Model Year New Gasoline Fueled, Natural Gas-Fueled, Liquefied Petroleum Gas-Fueled and Methanol-Fueled Heavy-Duty Vehicles

- 86.000-2 Definitions.
- 86.000-3 Abbreviations.
- 86.000-7 Maintenance of records; submittal of information; right of entry.
- 86.000-8 Emission standards for 2000 and later model year light-duty vehicles.
- 86.000-9 Emission standards for 2000 and later model year light-duty trucks.
- 86.000-16 Prohibition of defeat devices.
- 86.000-24 Test vehicles and engines.
- 86.000-26 Mileage and service accumulation; emission measurements.
- 86.000-28 Compliance with emission standards.
- 86.001-2 Definitions.
- 86.001-9 Emission standards for 2001 and later model year light-duty trucks.
- 86.001-21 Application for certification.
- 86.001-22 Approval of application for certification; test fleet selections; determinations of parameters subject to adjustment for certification and Selective En-

- forcement Audit, adequacy of limits, and physically adjustable ranges.
- 86.001-23 Required data.
- 86.001-24 Test vehicles and engines.
- 86.001-25 Maintenance.
- 86.001-26 Mileage and service accumulation; emission measurements.
- 86.001-28 Compliance with emission standards.
- 86.001-30 Certification.
- 86.001-35 Labeling.
- 86.004-2 Definitions.
- 86.004-9 Emission standards for 2004 and later model year light-duty trucks.
- 86.004-11 Emission standards for 2004 and later model year diesel heavy-duty engines and vehicles.
- 86.004-15 NO<sub>x</sub> plus NMHC and particulate averaging, trading, and banking for heavy-duty engines.
- 86.004-16 Prohibition of defeat devices.
- 86.004-21 Application for certification.
- 86.004-25 Maintenance.
- 86.004-26 Mileage and service accumulation; emission measurements.
- 86.004-28 Compliance with emission standards.
- 86.004-30 Certification.
- 86.004-38 Maintenance instructions.
- 86.004-40 Heavy-duty engine rebuilding practices.
- 86.005-1 General applicability.
- 86.005-10 Emission standards for 2005 and later model year Otto-cycle heavy-duty engines and vehicles.
- 86.005-17 On-board diagnostics.
- 86.007-11 Emission standards and supplemental requirements for 2007 and later model year diesel heavy-duty engines and vehicles.
- 86.007-15 NO<sub>x</sub> and particulate averaging, trading, and banking for heavy-duty engines.
- 86.007-17 On-board Diagnostics for engines used in applications less than or equal to 14,000 pounds GVWR.
- 86.007-21 Application for certification.
- 86.007-23 Required data.
- 86.007-25 Maintenance.
- 86.007-30 Certification.
- 86.007-35 Labeling.
- 86.007-38 Maintenance instructions.
- 86.008-10 Emission standards for 2008 and later model year Otto-cycle heavy-duty engines and vehicles.
- 86.010-2 Definitions.
- 86.010-18 On-board Diagnostics for engines used in applications greater than 14,000 pounds GVWR.
- 86.010-38 Maintenance instructions.
- 86.012-2 Definitions.
- 86.016-1 General applicability.
- 86.078-3 Abbreviations.
- 86.078-6 Hearings on certification.
- 86.079-31 Separate certification.
- 86.079-32 Addition of a vehicle or engine after certification.